Phase diagram for the system ...

There are 2 figures, 2 tables, and 12 references: 1 Soviet-bloc and 11 non-Soviet-bloc. The reference to the English-language publication reads as follows: E. J. Felfen, J. Amer. Chem. Soc. 72, 5977 (1956)

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific-Research Physico-Chemical Institute imeni L. Ya. Karpov)

SUBMITTED: July 14, 1961

Card 3/3

32304
S/020/61/141/004/010/019
B103/B101

21.2400 also 2408

AUTHORS: Serebryanskiy, V. T., Epel'baum, V. A., and Zhdanov, G. S.

TITLE: The constitution diagram of the aluminum boron system

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 4, 1961, 884 - 886

TEXT: The Al - B system was studied, since literature data as to its constitution diagram are contradictory. A contact-free high temperature thermal analysis (up to 2800°C) was obtained by means of the ВНТА-1 (VNTA-1) apparatus devised by N. A. Nedumov (ZhFKh, 34, 184 (1960)). Pressed rodlets of 5 g were prepared from Al (purity 99.99%) and B (purity 99.5%), melted in purified helium in corundum or BeO crucibles and cooled at a rate of 20 deg/min. Fig.1 shows that the Al - B system is complex and contains several peritectoid transformations. The variation of the lattice period of Al remains within the limit of error. Thus, x-ray data cannot be used to make conclusions as to the solubility of B in Al. The data found differed from those of W. Hofmann and W. Jäniche (Ref. 4: Zs. Metallkunde, 28, 1 (1936)). Al as well as AlB_2

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The constitution diagram of ...

are present in specimens containing up to 1% of B. With a higher percentage of B, α-AlB_{12} (the tetragonal modification of "graphitoidal boron") is contained besides AlB_2. The peritectic line at 975°C corresponds to the decomposition of $AlB_2 \longrightarrow AlB_{12} \longrightarrow Al$. At low temperatures, the alloys are not in equilibrium, since α-AlB_{12} is found in quantities increasing with increasing B content. AlB_2 crystallizes in the form of thin hexagonal lamellas of bronze color. Its lattice constants are: $a = 3.01$ Å; $c = 3.26$ Å. The pycnometric density measured is 3.09 g/ cm^3. Al and α-AlB_{12} were found in specimens quenched from 1000 - 1400°C. It was not possible to explain the nature of the transformations at 1450°C. The peritectic at 1550°C corresponds to the formation of β-AlB_{12}, the "diamond-like boron". This phase was obtained in pure state when specimens containing up to 82.5% of B were quenched from 1600°C. It crystallizes in the form of long tetragonal prisms or bipyramids and is

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The constitution diagram of ...

yellow to brown. Their chemical analysis resulted in percentages of: 82.98 B and 16.85 Al (sometimes differing from stoichiometry: 86.0 and 14.1 resp.). The temperature range of β-AlB_{12} is 1550 - 1660°C. When cooled gradually it is converted to α-AlB_{12}. This conversion is not completed on slow, but insufficient cooling. In specimens quenched from 1700 - 1750°C AlB_{10} was found: black pyramidal crystals having a pycnometric density of 2.72 g/cm^3 and B and Al contents of 79.8 and 19.8% respectively. The temperature range is 1660 - 1850°C. AlB_{10} forms equally α-AlB_{12} on gradual cooling. Quenching from 1850 - 2070°C and slow cooling of the alloy 82.5% B + 17.5% Al results in α-AlB_{12} with the lattice periods a = 10.15 Å, c = 14.29 Å and a pycnometric density of 2.62 g/cm^3. α-AlB_{12} is found in alloys containing 82.5 - 93% of B and is a solid solution of Al in B. Seven alloys containing 4 - 30% of Al and 96 - 70% of B as well as amorphous boron were melted in an electric arc

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The constitution diagram of ...

furnace in helium atmosphere to check the above-mentioned data. Their analysis differed from the charge composition owing to the evaporation of both components. Specimens containing up to 82% of B consisted of Al and α-AlB_{12}, those with 82 - 93% of B contained only α-AlB_{12}. The B melted was rhombohedral and had parameters of the hexagonal cell measured by reflection from the angles 78°7' and 78°58'; a = 10.95 Å, c = 23.76 Å consistent with Ref. 13, see below). Between 93 and 100%, only rhombohedral boron was found which had c = 23.87 Å at 93%. Presumably, this is connected with the formation of the solid solution of Al in B. There are 1 figure and 13 references: 6 Soviet and 7 non-Soviet. The three references to English-language publications read as follows: Ref. 9: P. Cotter, Am. Mineralogist, 43, 781 (1958); Ref. 12: C. P. Talley, S. La Placa, Ben Post, Acta crystallogr., 13, 271(1960); Ref. 13: D. E. Sands, J. L. Hoard, J. Am. Chem. Soc., 79, 5582 (1957).

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute imeni L. Ya. Karpov)

Card 4/5

32304
S/020/61/141/004/010/019
B103/B101

The constitution diagram of ...

PRESENTED: July 11, 1961, by N. V. Belov, Academician

SUBMITTED: July 11, 1961

Card 5/5

NOVIK, I.O., prof. (Kiyev); EPEL'BEYM, Z.M. (Kiyev); LESHCHUK, G.F. (Kiyev)

Role of physical therapy in the over-all treatment of paradentosis. Probl.stom. 4:241-244 '58. (MIRA 13:6)
(GUMS--DISEASES) (PHYSICAL THERAPY)

EPEL'BEYM, Z.M. (Kiyev); LESHCHUK, G.F. (Kiyev)

Use of an electrical field of ultrahigh-frequency in the treatment of suppurating forms of paradentosis. Probl.stom. 4:275-278 '58. (MIRA 13:6)

(GUMS--DISEASES) (ELECTROTHERAPEUTICS)

EPEL'BEYM, Z.M.; UDOVITSKAYA, Ye.V.

Electrodiagnosis in the stomatological clinic. Vrach.delo no.8:869-871 Ag '59. (MIRA 12:12)

1. Kafedra terapevticheskoy stomatologii (zav. - prof. I.O. Novik) Kiyevskogo meditsinskogo instituta.
(ELECTRODIAGNOSIS) (STOMATOLOGY)

NOVIK, I.O.; FRANKOVSKAYA, S.I.; LESHCHUK, O.F.; EPEL'BAUM, Z.M.

Use of carbon dioxide in the compound treatment of pyorrhea alveolaris. Probl. stom. 5:74-81 '60. (MIRA 15:2)

1. Kiyevskiy meditsinskiy institut.
(CARBON DIOXIDE--THERAPEUTIC USE) (GUMS--DISEASES)

DANILEVSKIY, N.F.; EPEL'BAUM, Z.M.

Use of fluorinated phosphatic cement in certain diseases of the solid dental tissues. Probl. stom. 5:140-145 '60. (MIRA 15:2)

1. Kiyevskiy meditsinskiy institut.
(FLUORINE--PHYSIOLOGICAL EFFECT) (THERAPEUTICS, DENTAL)

KHYSHTAB, S.I.; [redacted]'BEYM, Z.M.

Ultraviolet irradiation in the over-all treatment of paradentosis.
Vrach.delo no.7:126-127 Jl '60. (MIRA 13:7)

1. Kafedra ortopedicheskoy stomatologii (zav. - prof. A.I. Betel'man) i kafedra terapevticheskoy stomatologii (zav. - prof. I.O. Novik) Kiyevskogo meditsinskogo instituta.
(ULTRAVIOLET RAYS--THERAPEUTIC USE)
(GUMS--DISEASES)

NOVIK, I.O.; EPEL'BEYM, Z.M.

Vacuum massage in the compound treatment of paradentosis.
Stomatologiia 41 no.5:3-5 S-O '62. (MIRA 16:4)

1. Iz kafedry terapevticheskoy stomatologii (zav. - prof. I.O. Novik) Kiyevskogo ordena Trudovogo Krasnogo Zanmeni meditsinskogo instituta imeni A.A.Bogomol'tsa.
(GUMS--DISEASES) (MASSAGE)

EPEL'BOYM, P.

Acceleration of the drying and burning of brick. Sel'. stroi. no.9:15 S '62. (MIRA 15:10)

1. Nachal'nik otdela stroitel'nykh materialov Kiyevskogo oblastnogo mezhkolkhoznogo stroitel'stva.

(Brickmaking)

YERSHOV, L.D., kand.tekhn.nauk; CHERNYSHEV, G.S., inzh.; LUKASHENKO, I.A., inzh.; UDOVIK, L.N., inzh.; LESHCHINA, A.S., inzh.; SAS, Ye.Ya., inzh.. Prinimali uchastiye: BORTNIK, S.P., inzh.; EPEL'BOYM, P.L., inzh.; INOSOVA, N.A.. LUKASHENKO, I.A., inzh., red.

[Instructions for manufacturing three-step blocks for arched roofs made without forms] Instruktivnye materialy po proizvodstvu trekhstupenchatykh blokov dlia bezopalubochnykh svodchatykh pokrytii. Kiev, Biuro tekhn.informatsii NIISK ASiA USSR, 1958. 35 p. (MIRA 12:4)

1. Akademiya budivnytstva i arkhitektury URSR. Instytut budivel'nykh materialiv i vyrobiv.
(Building blocks) (Roofs)

EPEL'BOYT, P.L.

ALEKSEYEV, M.V.; EPEL'BOYT, P.L.

Making colored cement-sand tiles. Biul.tekh.-ekon.inform. no.2:35-37 '58. (MIRA 11:4)
(Tiles)

ALEKSEYEV, M., inzh.; [redacted]EL'BOYM, P., inzh.

Using coloring powders in producing colored cement-sand roofing tiles.
Stroi. mat. 4 no.9:28-29 S '58. (MIRA 11:10)
(Tiles, Roofing)

ALEKSEYEV, M., insh.; EPIL'BOYM, P. L., insh.

Making ceramic facing tiles in series. Sel'. stroi. 13 no. 9:16-17 S '58. (MIRA 11:10)

(Tiles)

PODLUBNAYA, Ye.T.; BABKOVA, A.N.; EPEL'MAN, A.A.

Ultraviolet absorption spectra of some essential oils and aromatic alcohols. Trudy TSNIISP no. 8:117-122 '59.
(MIRA 14:1)

(Essences and essential oils--Spectra)
(Alcohols--Spectra)

PODLUBNAYA, Ye.T.; BABKOVA, A.N.; EPEL'MAN, A.D.; EPEL'MAN, A.A.

Interferometric method for determining the concentration of essential oils from Δn in solutions. Trudy TSNIISP no. 8:151-157 '59. (MIRA 14:1)
(Essences and essential oils) (Alcohols)

PODLUBNAYA, Ye.T.; BARKOVA, A.N.; EPEL'MAN, A.D.; EPEL'MAN, A.A.

Interferometric method for determining the concentration of essential oils from Δ^n in solutions. Trudy TSNIISP no. 8:151-157 '59. (MIRA 14:1)
(Essences and essential oils) (Alcohols)

TRUSOVA, S.A.; POTAPOVA, A.A.; APEL'MAN, A.D.; FAYERSHTERN, Ya.D.

Filtration of fruit liqueur products. Trudy TSNIISP no.7:135-137 '59. (MIRA 13:9)

(Liqueurs) (Filters and filtration)

PETROV, Vladimir Arsent'yevich; KOLMAKOV, Nikolay Alekseyevich; EPEL'MAN, Gilel' Grigor'yevich. Prinimali uchastiye: NIKITIN, V.V.; MOROZOV, I.I.; SIVOKHA, N.V.; UTROBINA, N.I.; NIKITINA, N.N.; PANKOV, N.N.; BAUSHEV, N.P.; TATEVOSOV, K.G., dots.; LIPKIND, L.M.; LEBEDEVA, A.K., inzh.-ekon.; VIL'DAVSKIY, I.M., dots., retsenzent; VOLKOV, S.A., kand. ekon. nauk, dots., red.; CHFAS, M.A., red. izd-va; PETERSON, M.M., tekhn. red.

[Continuous conveyer methods used in the lot production of composite machines] Potochno-konveiernye metody v seriino m proizvodstve slozhnykh mashin; iz opyta Leningradskogo zavoda poligraficheskikh mashin. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 130 p. (MIRA 14:9)

1. Rabotniki Leningradskogo zavoda poligraficheskikh mashin(for Nikitin, Morozov, Sivokha, Utrobina, Nikitina, Pankov, Baushev). 2. Leningradskiy inzhenerno-ekonomicheskiy institut (for Tatevosov, Lipkind, Lebedeva).

(Leningrad--Printing machinery and supplies)
(Factory management)

PETROV, Vladimir Arsen'yevich; EPEL'MAN, Gilel' Grigor'yevich; NOVIKOVA, L.K., red.; FREGER, D.P., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Line multiple machining of parts]Potochno-gruppovaia obrabotka detalei; opyt Leningradskogo zavoda poligraficheskikh mashin. Leningrad, 1962. 26 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Organizatsiia proizvodstva, no.4) (MIRA 15:11)
(Metal cutting) (Automation)

EPEL'MAN, G.G.

Diversified production line for machining cast parts. Mashinostroitel' no.1:22-25 Ja '64. (MIRA 17:2)

EPEL'MAN, I.B., inzh.

Construction of one part of the Krasnodar Territory--Serpukhov gas pipeline. Stroi. truboprov. 6 no.9:13-15 S '61. (MIRA 14:9)

1. Stroitel'nyy uchastok No.1 tresta Shchekingazstroy, g. Shchekino.
(Gas, Natural--Pipelines)

ZLATKIN, V.P. (Leningrad); GALANI, V.P. (Novocherkassk); EPEL'MAN, I.B. (Shchekino, Tul'skoy obl.)

Make gas available to the enterprises of big chemistry. Stroi. truboprov. 9 no.1:13-15 Ja 64. (MIRA 17:3)

137-58-6-1[illegible]

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 10 (USSR)

AUTHORS: Kislyakov, L.D., Epel'man, L.L., Sinel'shchikova, Ye.N., Skorodumova, L.P.

TITLE: Results of Introduction of Selective Flotation of Copper-and-zinc Ores at the Krasnoural'sk Concentrating Mill (Rezul'taty osvoyeniya selektivnoy flotatsii medno-tsinkovykh rud na Krasnoural'skoy obogatitel'noy fabrike)

PERIODICAL: Byul. Tsentr. in-t inform. M-va tsvetn. metallurgii SSSR, 1957, Nr 3, pp 13-20

ABSTRACT: Experiments were conducted with various procedures for the selective flotation (F) of Cu-Zn ores of the Sibayev deposit, under industrial and pilot-plant conditions. The procedure recommended is one of direct selective F, first of Cu, with fine comminution of the concentrate of the primary flotation, followed by double fining thereof, and then of Zn-FeS_2 flotation with fine grinding of the combined concentrate with subsequent F of Zn therefrom, with four finings. FeS_2 concentrate is also [illegible]ed from the tailings of the combined F. The Zn is de- [illegible] the copper cycle by cyanide and $ZnSO_4$, while

Results of Introduction (cont.) 137-58-6-11328

$CuSO_4$ is used to activate the Zn during the zinc cycle. The collector is butyl xanthate. Hydrocyclones are used for control classification and thickening. Qualitative and equipment diagrams of the F process are presented, as well as tables of F procedures and performance criteria thereof.

1. Copper ores--Flotation 2. Zinc ores--Flotation L.B.

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KISLYAKOV, L.D.; BELOVOD, R.N.; EPEL'MAN, L.L.; SINEL'SHCHIKOVA, Ye.N.

Adopting the use of hydraulic cyclones at the Krasnoural'sk Ore Dressing Plant. Trudy Uralmekhanobra no.5:11-30 '59. (MIRA 15:1)

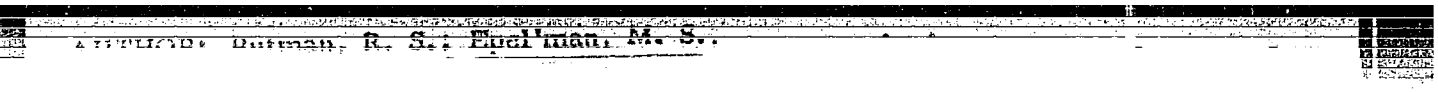
1. Ural'skiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki polezmykh iskopayemykh (for Kislyakov, Belovod).
2. Krasnoural'skaya obogatitel'naya fabrika (for Epel'man, Sinel'shchikova).

(Krasnoural'sk--Ore dressing)
(Separators (Machines))

EPEL'MAN, M. D.

33610 Problema Oslozhneniy So Storony Nervnoy Sistemy V Svyazi S Sypnym Tifom. Vchen. Zapiski (Chernovits. Gos. Med. In-t), T. 1, 1949, C. 149-62

SO: Letopis'nykh Statey, Vol. 45, Moskva, 1949



SUBMITTED: 16Apr64 ENCL: 00

ACC NR: AP5027832 SOURCE CODE: UR/0020/65/165/001/0051/0054

AUTHOR: Trumkin, Ya. Z.; Freilman, M. S.

L 7761-66

ACC NR: AP5027832

$$x[n] = f[n] - \sum_{m=0}^{n} w[n-m]\,\Phi(x[m], m), \quad (1)$$

This scheme is described by the vector difference equation where $\vec{x}$ [n], $\vec{f}$ [n] $\vec{\Phi}$ ($\vec{x}$ [n], n) are M-dimensional error vectors of the external interactions and the characteristics of the nonlinear elements, respectively; $\vec{w}$ [n] is the square matrix of M-th order the elements of which are the pulse characteristics of the linear pulse section (LPS). It is assumed that the LPS is stable and that the characteristics of nonlinear elements are subject to certain conditions. The author then formulates and proves the criterion of absolute stability in the form of a theorem. The new criterion can be generalized easily to include systems with further limitations imposed on the nonlinear element characteristics or the stability of processes. The paper was presented by Academician B. N. Petrov, 26 Mar 65. Orig. art. has: 24 formulas and 1 figure.

SUB CODE: IE, MA / SUBM DATE: 17Mar65 / ORIG REF: 006 / OTHER REF: 002

nw

Card 2/2

VANSHEYDT, Vsevolod Aleksandrovich. Prinimal uchastiye: SHISHKIN, V.G., kand.tekhn.nauk; EPEL'MAN, T.Ye., kand.tekhn.nauk, retsenzent; ZAKHARENKO, B.A., kand.tekhn.nauk, nauchnyy red.; SHAURAK, Ye.N., red.; FRUMKIN, P.S., tekhn.red.

[Marine internal combustion engines; theory] Sudovye dvigateli vnutrennego sgoraniia; teoriia. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1958. 455 p. (MIRA 12:4)
(Marine engines)

EPEL'MAN, T.Ye.

Graphic method for determining available "time-section" of openings with variable width. Nauch.dokl.vys.shkoly; mash. i prib. no.1:18-23 '59. (MIRA 12:8)
(Diesel engines--Design--Graphic methods)

PETROVSKIY, Nikolay Viktorovich. Prinimali uchastiye: KAMKIN, S.V., kand. tekhn.nauk; NESTERENKO, N.V., aspirant; OVSYANNIKOV, M.K., kand. tekhn.nauk. APEL'MAN, T.Ye., dotsent, kand.tekhn.nauk, retsenzent; ROLINSKIY, V.Yu., dotsent, kand.tekhn.nauk, retsenzent; TARACHNIKOV, L.Ya., dotsent, kand.tekhn.nauk, retsenzent; ERINCHEK, A.M., dotsent, kand.tekhn.nauk, retsenzent; GRIBANOV, V.I., kand.tekhn.nauk, nauchnyy red.; APTEKMAN, M.A., red.; FRUMKIN, P.S., tekhn.red.

[Special problems in the theory of marine diesel engines] Spetsial'nye voprosy teorii sudovykh dizelei. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1960. 311 p. (MIRA 13:10)
(Marine diesel engines)

GOLUBCHENKO, Aleksandr Ivanovich; EPEL'MAN, Toviy Yevseyevich; Prinimal uchastiye SHEPILOV, V.A.; KURZON, A.G., retsenzeng; MIRYUSHCHENKO, A.A., retsenzent; SHAURAK, Ye.N., red.; VASIL'YE, L.G., nauchnyy red.; KOROVENKO, Yu.N., tekhn. red.

[Marine power plants] Sudovye silovye ustanovki. Leningrad, Sudpromgiz, 1962. 512 p. (MIRA 15:10)
(Boilers, Marine) (Marine engines) (Marine turbines)

EPEL'MAN, T.Ya., kand. tekhn. nauk; DOBROVOL'SKIY, V.V., kand. tekhn. nauk

Means of improving diesel-generator installations on ships. Sudostroenie 30 no.11:37-38 N '64. (MIRA 18:3)

ACC NR: AT7002855 (N) SOURCE CODE: UR/3239/66/000/003/0070/0082

AUTHORS: Epel'man, T. Ya.; Obrubov, A. S.; Lukin, A. I.; Baybarak, D. S.; Rinke, Yu. S.; Nishchenko, A. Ye.

ORG: none

TITLE: A study of the diesel 4D 19/30 operating on sulfurous fuel with the addition of VNII NP-360 to the lubricating oil

SOURCE: Nikolayev. Korablestroitel'nyy institut. Sudostroyeniye i morskiye sooruzheniya, no. 3, 1966. Susovyye energeticheskiye ustanovki (Ship power equipment), 70-82

TOPIC TAGS: diesel engine, engine lubrication system, diesel fuel, lubricating oil, fuel composition, generator, fuel corrosiveness, lubricant additive/ D-11 lubricating oil, 4D 19-30 diesel engine, VNII NP-360 lubricant additive, SGD 12-24-10A AC generator

ABSTRACT: Studies were conducted at the DVS Laboratory of the Nikolayevsk Ship Building Institute im. Admiral S. O. Makarov (Laboratoriya DVS Nikolayevskogo korablestroitel'nogo instituta) to determine the effect of high sulfur fuel on diesel engine operation, both with and without an additive to the lubricating oil. The diesel, a 4D 19/30 made by the Berislavskiy Machine Construction Plant, was a two-cycle four-cylinder engine producing 160 hp at 500 rpm. Both in practice and on the

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ACC NR: AT7002855

test stand it drives an SGD 12-24-10A three-phase AC generator. To determine the base data, the engine was turned over hot for 200 hours. The actual test with a fuel containing 0.8% S was done in two stages: the first using lubricating oil D-11, the second using the same oil with an 8% addition of VNII NP-360. Each stage lasted for 300 hours over 7--8 cycles from idle operation to a 10% overload. The study of carbon and other deposits and of the wear of the engine parts was based on micrometer measurements, weights, and test borings of the members. The engine operation was also monitored. There was no engine failure due to the sulfur. The cooling process limited the water temperature to 75C, and further studies should be conducted to determine optimal temperature conditions for high sulfur fuels. Cylinder sleeve wear in the first stage was 12.24 micron and in the second stage -- 1.82. The additive reduced the piston wear by 21.9%, while the addition of VNII NP-360 reduced the total deposits from 41.953 g to 38.745 g. The latter additive also diminished the abrasive nature of the deposits. The use of VNII NP-360 in the lubricant with 1%-sulfur fuels is said to increase diesel lifetime by 15--20%. Orig. art. has: 5 figures and 9 tables.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 012

Card 2/2

S/117/61/000/001/012/013
A004/A001

AUTHOR: Epel'tsveyg, A. M.

TITLE: Corrosion can be Overcome

PERIODICAL: Mashinostroitel', 1961, No. 1, pp. 37-40

TEXT: The author gives a survey of anti-corrosion devices and methods shown at a special exhibition organized by the VDNKh USSR. 129 enterprises and 73 scientific research and planning organizations showed more than a thousand exhibits in nine sections of the exhibition. The NIITAvtoprom Institute in cooperation with the ZIL Plant has developed a process of protective calorizing of thermal packing material subjected to intensive destruction in the course of work at high temperatures and in oxidizing media. The scale resistance of the calorized parts of low-carbon steel at temperatures in the range of 950 - 1,000°C increased 5 - 6 times, while that of alloyed steel at 1,000 - 1,150°C increased 4-5 times. The Tormoznoy zavod (Brake Plant) of the Mosgorsovnarkhoz and other plants have put into service ultrasonic installations for the degreasing and surface cleaning of parts prior to galvanizing. The treatment of the parts in a special solution at 55 - 60°C with ultrasonic oscillations ensures a quick and high-quality

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Corrosion can be Overcome

preparation of their surfaces. The ultrasonic ПР-213А (PR-213A) semi-automatic washer for the washing and drying of small-size parts was of special interest. The semi-automatic is a seven-position rotary installation, of which five positions are intended for the washing, one for the drying and one for the unloading of the parts. The Vladimir Sovnarkhoz exhibited a machine for the quick electrolytic pickling of strip material with simultaneous regeneration of sulfuric acid. Another plant of the same Sovnarkhoz is using an automatic for the degreasing, pickling and parkerizing of parts prior to painting, which replaces sand-blast cleaning and increases the anti-corrosion surface protection. The Teplovozostroitel'nyy zavod imeni Oktyabr'skoy revolyutsii (Diesel Locomotive Plant imeni "Oktyabr'skaya Revolyutsiya") at Lugansk showed a semi-automatic installation for the electrochemical cleaning of castings from skin and foundry scab with a capacity of 45 tons per day. The NIIKhIMMASh Institute demonstrated a pickling method with the aid of alternating current of industrial frequency, intended for the electrolytic non-contact pickling of bands, sheets and wire. The duration of the pickling process amounts to 1-10 seconds. A mechanical engineering plant of the Kuybyshev Sovnarkhoz showed an installation for the hydraulic lapping of inner surfaces of pipes. Pipes of different diameters can be machined, starting from 4 mm. Five tubes of up to 6 m length can be tooled simultaneously. The

Corrosion can be Overcome

installation has a productivity of 40-50 m of pipes per hour. The same plant applies a method of chemical milling of large-size parts made of aluminum alloys. This process is mechanized with the aid of special devices, which cuts down labor consumption 6-7 times. The Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i legkogo mashinostroyeniya (All-Union Scientific Research Institute of Textile and Light Machinery), VNIILTEKMASh, introduced electric polishing and combined processes by the bipolar method. This method is characterized by the fact that the polarizing current is supplied to the part not through a metallic contact, but that it is supplied to insulated electrolytic cells with the aid of auxiliary electrodes. The Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov (Ural Scientific Research Institute of Ferrous Metals) has developed a technological process of removing scale from metals with the aid of sodium hydride. Compared with the ordinary methods of pickling in acid solutions, the new process speeeds up scale removal 5-10 times, while metal losses are reduced 1.5 - 3 times. The Nauchno-issledovatel'skiy institut khimicheskogo mashinostroyeniya (Scientific Research Institute of Chemical Engineering) showed an installation for the electric polishing of outer and inner pipe surfaces 120 - 750 mm in diameter, which makes it possible to increase labor productivity 10 times in comparison with mechanical working. A plant of the Moscow Oblsovnarkhoz showed the compact GK-2 (GK-2)

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S/117/61/000/001/012/013
A004/A001

Corrosion can be Overcome

hydraulic sand-blast installation with revolving drum (Fig. 1)

Figure 1:

1 - jet; 2 - jacket; 3 - drum; 4 - reducer; 5 - rubber hose; 6 - pipe with filter; 7 - hopper.

Figure 1:

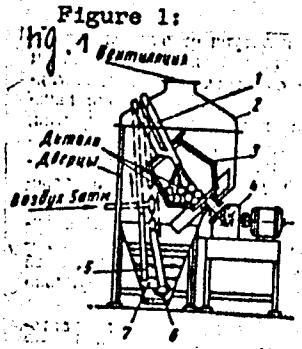
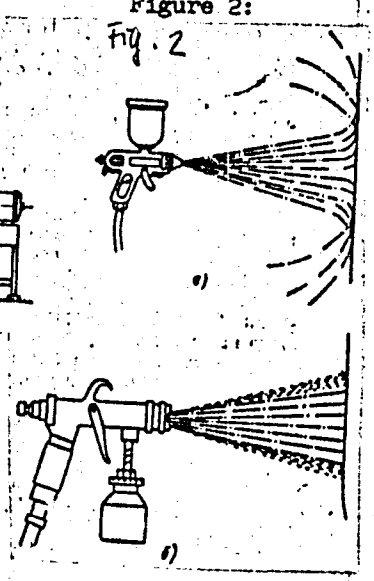


Figure 2:



Small and medium-sized parts are cleaned from oxidation, rust, scale and other impurities by a sand jet mixed with water and pressed into the drum at 4-6 at. A considerable part of the exhibition dealt with protective coatings and their application, where synthetic products were of foremost importance. The author points out that 49.1% of the total production of varnishes, paints and drying oil in 1960 were synthetic materials, while this percentage will be increased by 1965 to 87.5%. Based on data of the NIITraktorsel'khozmash Institute and a number of agricultural machinery

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plants, it is stated that agricultural machines coated with the ЭП-5 (EP-5) synthetic enamel are corrosion resistant up to 8 years. By substituting the ХВ-113 (KhV-113) enamel for the ФСХ (FSKh) grade, the ChTZ saved some 160,000 rubles annually only on account of reducing the heat-transfer agent consumption. A great part of the exhibition was dedicated to high-efficiency and safe methods of paint application. The painting of parts in an electric high-tension field has many advantages over other existing methods, while a heat-emission drying chamber, using tubular electric driers to obtain temperatures in the range of 350 - 400°C, speeds up drying by infrared rays. The Vsesoyuznyy proyektno-tekhnologicheskiy institut tyazhelogo mashinostroyeniya (All-Union Technological Planning Institute of Heavy Machinery) showed the new ВТО-3М (BTO-3M) paint-spraying gun which, because of its low atomizing pressure and air jacket around the paint jet, makes it possible to apply the paint without the forming of a paint mist, (see Fig. 2, a - existing design, b - BTO-3M design). An interesting exhibit was the ИПУ (IPU) spark-preventing device shown in Figure 3.

Figure 3:

1 - insulator; 2 - cover; 3 - housing; 4 - thyratron with divider; 5 - incandescent transformer; 6 - foundation; 7 - limiting resistor; 8 - amplifying block.

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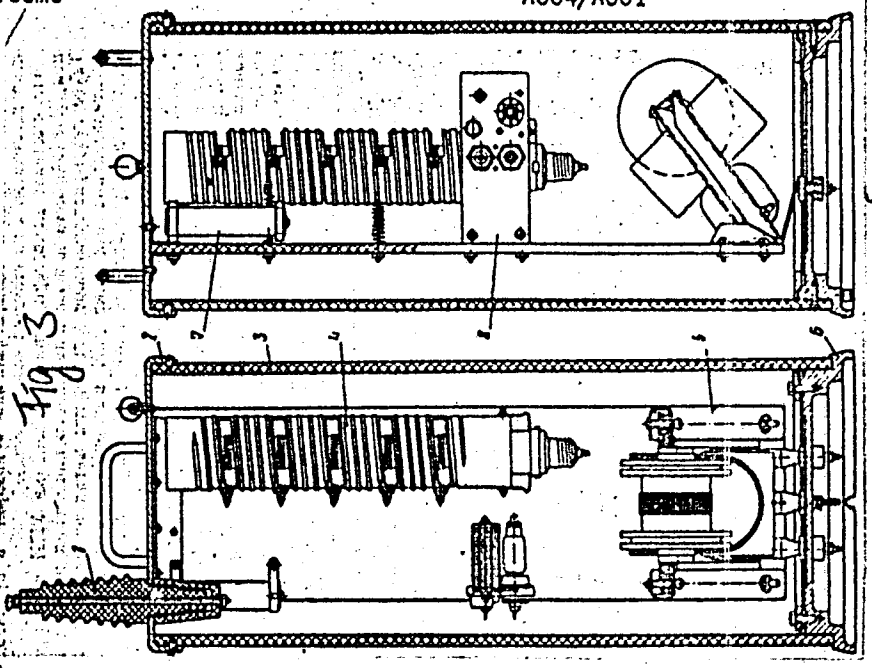
Corrosion can be Overcome

This device is intended to prevent spark-overs during electric painting, which is particularly necessary when working with nitro-dyes. Its response time amounts to 1×10^{-6} seconds. An extensive range of metallic coatings were shown at the exhibition. The NIITAvtoprom in cooperation with the ZIL Plant has developed a process of bulk zink plating

Fig 3



Card 6/9 Figure 3.

Corrosion can be Overcome

of parts in a zincate electrolyte, for which a non-cyanogen electrolyte in special bell automatics is used. Substituting the zincate electrolyte for the poisonous cyanogen electrolyte improved the working conditions and increased the labor productivity by 1.5 times. A new process of lustrous nickel-plating with equalizing additives is mentioned, whose characteristic consists in using three special additives in the electrolyte, viz. equalizing, luster-forming and anti-pitting additives. Thus lustrous coatings with a high corrosion resistance are obtained. The Yaroslavskiy tekhnologicheskiy institut (Yaroslavl' Technological Institute) in cooperation with an engine plant of the Yaroslavl' Sovnarkhoz has developed a new anti-corrosion coating for engine parts operating in diesel oil heated up to 100°C. This new coating consists of a lead-tin-zinc alloy deposited in a layer of 3 - 5 within 6 - 9 minutes. The Kazanskiy khimiko-tekhnologicheskiy institut im. S. M. Kirova (Kazan' Chemical-Technological Institute im. S. M. Kirov) has developed a new galvanization electrolyte on the base of the ammonia hydroxide groups of zinc. The Zavod normaley (Plant of Standard Parts) of the Gor'kiy Sovnarkhoz has substituted the galvanizing of standard parts in sulfuric acid electrolytes by galvanizing in an ammonium chloride electrolyte, ensuring a high throwing power and high specific electric conductivity. The zinc coating thus obtained is characterized by a fine-grained structure, good adhesion to the basic

Card 7/9

Corrsion can be Overcome

metal and nonporousness. The Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov (Ural Scientific Research Institute of Ferrous Metals) has developed a method of protecting cold-rolled sheets of 0.8 - 1.2 mm thickness, used for the construction of car-bodies, from corrosion with the aid of zinc. A zinc coat of 1 - 4 deposited on the surface of the cold-rolled metal increases the life of car-bodies 2-3 times. NIIKhimmash has developed technological processes of thermal chrome-plating and diffusion galvanizing of parts operating at high temperatures and pressures (up to 500 at) in moist media in the presence of sulfuric gases and carbon dioxide, and in media containing hydrogen and hydrogen sulfide. These methods make it possible to substitute stainless steels and increase the strength and resistance to wear of friction and cutting parts. The exhibition showed a number of mechanized and automated metal-coating installations. Thus the Vladimir Sovnarkhoz showed a bell-shaped unit for the galvanizing of small parts with 300 kg/hour capacity. The Gor'kiy Automobile Plant has developed a cadmium-plating automatic for bushings with a capacity of 12,000 bushings per hour. The exhibited ПУРП-1 (PURP-1) device was of special interest, since it ensures reversal of the supply current of galvanic baths with different duration, automatic control of the current density and electrolyte temperature, automatic measurement of the coating thickness in the process of deposition and the

signaling of the termination of the process. The automatic program-controlled АПГ-Т (APG-T) converter has been devised for the automation of chrome-plating processes with currents of alternating polarity. The device changes the magnitude and the direction of current and maintains the given electrolyte temperature. A method of ion-exchange cleaning of vaste waters of galvanic shops has been developed by the NIITraktorsel'khozmash Institute. The УПН (UPN) installation, designed by the VNIIAvtogen Institute and intended for the gas-flame spraying of plastics, was shown at the exhibition. Moreover a new type of metal coating - liquid nayrit - was exhibited at the exhibition. Liquid nayrit is a new type of synthetic caoutchouc which can be used in the form of concentrated (65 - 75%) solutions of rubber mixtures for the rubber-coating of metals. The most effective inhibitors for the protection of metals from corrosion were also shown at the exhibition. There are 3 figures.

EPEL'TSVEYG, A.M.

Pinion rolling. Mashinostroitel' no.8:42-44 Ag '62. (MIRA 15:8)
(Gear shaping machines)

EPEL'TSVEYG, G.Ya.

Solving systems of linear equations by the method of the "chain series." Vych. i org.tekh. v stroi. i proek. no.1:57-62 '64. (MIRA 18:10)

1. Gosudarstvennyy institut tipovogo i eksperimental'nogo proyektirovaniya i tekhnicheskikh issledovaniy Gosstroya SSSR.

5.3610

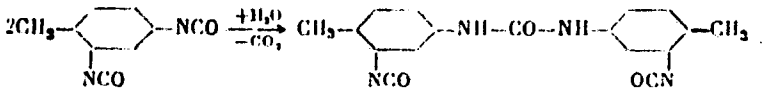
77894
SOV/79-30-2-45/78

AUTHORS: Khmel'nitskaya, I. L., Epel'tsveyg, L. A., Mikhaylova, T. A.

TITLE: Concerning the Reactions of 2,4-Toluylene Diisocyanate With Water

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 581-583 (USSR)

ABSTRACT: According to patents, a reaction of 2,4-toluylene diisocyanate with an equimolar amount of water yields 3,3'-diisocyano-4,4'dimethylcarbanilide.



(I)

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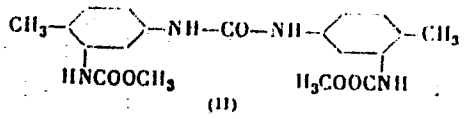
Concerning the Reactions of 2,4-Toluylene Diisocyanate With Water.

77894
SOV/79-30-2-45/78

Only melting temperatures were given for the compounds and structural formulas were not substantiated by experiments. The authors found that the above reaction yields a mixture of compounds, the melting temperature of which differs from the one given in patents by 5 to 10° C. The compound which by its chemical composition corresponds to 3,3'-diisocyano-4,4'-dimethylcarbanilide (I) was treated with methanol and converted to corresponding diurethane (II) (mp 220-220.5° C).



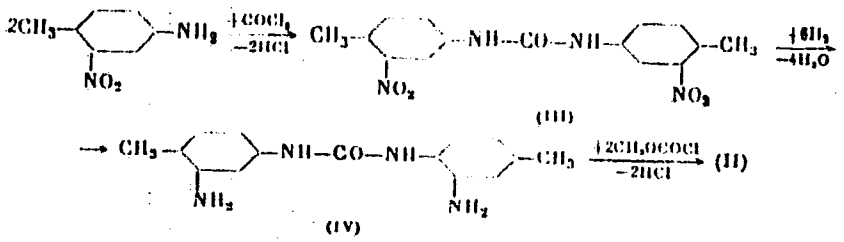
(II)

An identical urethane was obtained by parallel synthesis according to the following diagram.

Card 2/4

Concerning the Reactions of 2,4-Toluylene Diisocyanate With Water

77894
SOV/79-30-2-45/78



(III)

(IV)

The urea derivative (IV) with amino groups in 3,3' position was not previously described in the literature. Authors obtained (IV) (mp 230 ° C) by reducing (III) with hydrogen in the presence of Raney nickel. The diamine (IV) was treated with methyl chloroformate to yield corresponding diurethane which was identical with the diurethane obtained from (I). This proves the structure of (I). There are 4 references, 1 Soviet 2 U.S., and 1 French. The U.S. references are: U.S Patent 2757185, 2757184; D. Simons, R. Arnold, J. Am.

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Concerning the Reactions of 2,4-Toluylene Diisocyanate With Water

77894
SOV/79-30-2-45/78

Chem. Soc., 78, 1658 (1956).

ASSOCIATION: Scientific Research Institute of Organic Intermediates and Dyes imeni K. Ye. Voroshilov (Nauchno-issledovatel'skiy institut organicheskikh poluproductov i krasiteley imeni K. Ye. Voroshilova)

SUBMITTED: October 20, 1958

Card 4/4

EPER (ENGL).

FRIGYER, Laszlo, dr.; EPER(ENGL), Tivador, dr.

Experiences with roentgenotherapy of carcinoma of the stomach, esophagus, and colon. Orv hetil 95 no.16:432-435 Ap '54. (EEAL 3:8)

1. A Pecsi Tudomanyegyetem I. sz. Belklinikajanak (igazgato: Angyan Janos dr. egyetemi tanar) kozlemenye.

(COLON, neoplasms *ther., x-ray)
(STOMACH, neoplasms *ther., x-ray)
(ESOPHAGUS, neoplasms *ther., x-ray)
(RADIOTHERAPY, in various dids. *cancer of colon, esophagus & stomach)

EPER, Tivadar, Dr.

X-ray therapy of soft part injuries. Orv. hetil. 100 no.9:337-339 1 Mar 59.

1. A Pecsi Orvostudomanyi Egyetem I. sz. Belklinikajanak (igazgato: Angyan Janos dr. egyet. tanar) koslemenye.

(ATHLETICS, wds. & inj.
soft part inj. ther., x-ray (Hun))
(WOUNDS AND INJURIES, ther.
soft part inj. in athlete, x-ray (Hun))
(RADIOTHERAPY, in various dis.
soft part inj. in athlete (Hun))

EPER, Tivadar, dr.; BOHEMSZKY, Gyorgy, dr.

Evaluation of arteriography of the lower extremity without a seriograph. Orv.hetil. 101 no.32:1136-1137 7 Ag '60.

1. Pecsi Orvostudomanyi Egyetem, I. sz. Belklinika
(ANGIOGRAPHY)

EPER, Tivadar, dr.; BOHENSZKY, Gyorgy, dr.

The importance of a single arteriogram in the diagnosis and therapy of vascular diseases of the lower extremity. Magy radiol. 14 no.1: 35-39 Ja '62.

1. A pecsi Orvostudomanyi Egyetem I sz. Belklinikajanak (igazgato: Barta Imre dr. egyet tanar) kozlemenye.

(ANGIOGRAPHY) (VASCULAR DISEASES PERIPHERAL radiog)

BOHENSZKY, Gyorgy, dr.; EPER, Tivadar, dr.; BOKOR, Zsuzsa, dr.

Electromyography. Orv. hetil. 103 no.26:1227-1231 1 Jl '62.

1. Pecsi Orvostudomanyi Egyetem, I. Belklinika.
(ELECTROMYOGRAPHY)

HUNGARY

EPER, Tivadar, Dr; Medical University, I. Clinic of Internal Medicine (Orvostudomanyi Egyetem, I. Belklinika), Pecs.

"Data on the Indications of X-Ray Treatment of Arthrosis."

Budapest, Orvosi Hetilap, Vol 104, No 16, 21 Apr 63, pp 740-742.

Abstract: [Author's Hungarian summary modified] X-Ray treatment of 868 arthrotic patients led to the elimination of pain in 23 %, to improvement in 42 %, and to no change in 26 % of the cases. The site of the disease and the age of the patient do not affect the efficacy of the treatment but the time of the treatment relative to the onset of the disease does. Because of possible genetic damage, the treatment is not given to women below the age of 40 and men below the age of 50. In many such cases, other physical or balneotherapeutic treatment is preferred. Of 19 references, 8 are Hungarian, the rest is Western.

1/1

EPER, Tivadar, dr.

Data on the indications for roentgen therapy of arthroses. Orv. hetil. 104 no.16:740-742 21 Ap '63.

1. Pecsi Orvostudomanyi Egyetem, I. Belklinika.
(RADIOTHERAPY) (RADIATION INJURY) (PAIN) (SPINAL DISEASES)
(JOINT DISEASES)

EPER, Tivadar, dr., igazgato-foorvos

New methods for the medical examination of aortic stenosis.
Term tud kozl 8 no.6:266-268 Je'64.

1. City Council Hospital, Sopron.

EPERJESSY, A.

Methods of measuring load operating for a short time. p. 375.
Vol 2, no. 12, Dec.1955. JAVMUVEK MEZOGAZDASAGI GEPEK. Budapest, Hungary.

So: Eastern European Accession. Vol 5, no. 4, April 1956

RUMANIA/Human and Animal Physiology (Normal and Pathological) T
Nervous System. Metabolism.

Abs Jour : Ref Zhur Biol., No 6, 1959, 26986

Author : Eperjessy, A., Kiss, A., Csegedi, J., Makkai, O., Nemes, L.

Inst : -

Title : The Role of Lipoproteins of the Brain in the Biological Oxidation of Lipids.

Orig Pub : Rev. med. (RPR), 1956, 2, No 2, 23-28

EPERJESSY, A. ; KISS, A.; ADAM,S.; GYERGYA F.; FESZT, T.

Research on experimental encephalopathies. III. Chemical study of the cerebral lipoproteins of rabbits treated with a heterologous brain emulsion. Rev. sci. med. 8 no. 1/2:25-28 '63.

(ENCEPHALOMYELITIS) (BRAIN) (LIPOPROTEINS)

EPERJESSY, Ana; FESZT, T.; GYERGYAY, F.; KISS, A.; KOVACS, Viorica

Research on experimental encephalopathy. Pt.14. Comunicarile AR 13 no.11: 1003-1007 N'63.

1. Baza de cercetari stiintifice din Tg.-Mures a Academiei R.P.R.. Comunicare prezentata de academician D.Miskolczy.

T.EPERJESSY, Eva; THURANSZKY, Karoly; TAKATS, Istvan

Pharmacological study of a new active factor in Ruta graveolens. Kiserl. orvostud. 16 no.2:164-166 Ap'64

1. Szegedi Orvostudomanyi Egyetem Gyogyszerhatastani Intezete es Gyogyszertani Intezete.

L 29395-66 RO

ACC NR: AT6019813 SOURCE CODE: HU/2505/65/028/002/0177/0183

AUTHOR: Eperjessy, Eva T.; Balint, Gabor; Thuranszky, Karoly

33
B+1

ORG: [Eperjessy] Institute of Pharmacodynamics, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Gyogyszerhatastani Intezet); [Balint, Thuranszky] Institute of Pharmacology, Medical University of Szeged (Szegedi Orvostudomanyi Egyetem, Gyogyszertani Intezet)

TITLE: Investigations involving the pyrogenic effect of ricin

SOURCE: Academiae scientiarum hungaricae. Acta physiologica, v. 28, no. 2, 1965, 177-183

TOPIC TAGS: rabbit, rat, cat, body temperature, protein, toxicology

ABSTRACT: The pyrogenic action of ricin in the rabbit, rat, guinea pig and cat, has been investigated. By use of a new method developed for continuous registration of body temperature it has been shown that ricin, the toxic protein present in the seed of Ricinus communis (Euphorbiaceae), is capable of producing a higher and more prolonged rise in temperature (40-41°C for 60-72 hours) than any of the known pyrogenic compounds. Since there was no method known previously which would have permitted the induction of prolonged experimental fever by one single injection, the ricin-induced temperature elevation seems to be more suitable for the investigation of antipyretic drugs than the procedures employed so far. Orig. art. has: 6 figures and 2 tables. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: 06Nov64 / ORIG REF: 004 / OTH REF: 006

Card 1/1 ce

L 30121-66 SCIB DD

ACC NR: AT6020344 SOURCE CODE: HU/2505/65/028/004/0399/0406

23
B71

AUTHOR: Balint, Gabor; Thuranszky, Karoly; Eperjessy, Eva T.

ORG: [Balint; Thuranszky] Institute of Pharmacology, University Medical School, Szeged (Orvostudomanyi Egyetem Gyogyszertani Intezet); [Eperjessy] Institute of Pharmacodynamics, University Medical School, Szeged (Orvostudomanyi Egyetem Gyogyszerhatastani Intezet)

TITLE: Hypothermic action of the leaf extract of Syringa vulgaris

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 28, no. 4, 1965, 399-406

TOPIC TAGS: hypothermia, pharmacology, body temperature

ABSTRACT: Experiments on normothermic and hyperthermic animals revealed that an extract of Syringa leaves contains an antipyretic principle which, once obtained in pure form, should be more effective and less toxic than aminopyrine. Orig. art. has: 4 figures and 2 tables. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 06 / SUBM DATE: 22Feb65 / ORIG REF: 005 / OTH REF: 010

Card 1/1 ULR

HUNGARY

GABOR, Miklos, EPERJESSY, Eva; Medical University of Szeged, Institute of Pharmacodynamics (Szegedi Orvostudomanyi Egyetem, Gyogyszerhatastani Intezet).

"The Antibacterial Effect of Bioflavonoids. Experiments With Fisetin and Fisetidine."

Budapest, Kiserletes Orvostudomany, Vol XVIII, No 2, Apr 66, pages 203-207.

Abstract: [Authors' Hungarian summary] The antibacterial effect of some compounds belonging into the flavonoid group, fisetin, dihydrofisetin, fisetidine and dihydroquercetin were studied. According to the results, dihydrofistein and dihydroquercetin were ineffective, even in high concentrations, against all the strains tested. Fisetin and fisetidine, on the other hand, have a bacteriostatic and bactericidal effect, in high dilutions, on the growth of St. albus resistens and St. aureus (Buttle). According to the study, fisetin and fisetidine belong among the most highly effective antibacterial bioflavonoids known today. 3 Hungarian, 14 Western references. [Manuscript received 18 Jun 65.]

EPERJESSY, Istvan

Questions of control and automation have come to the fore; Chief Engineer Istvan Eperjessy's statement on the work of the Electric Power Research Institute. Ujit lap 14 no.21:8 10 N '62.

1. Villamos Energetikai Kutato Intezet fomernoke.

KONSTANTINOV, B.A., inzh.; EPFEL'BAUM, R.V.; MAMET, A.P., doktor tekhn.nauk

Problem concerning the automation of water treating systems.
Teploenergetika 10 no.4:52-55 Ap '63. (MIRA 16:3)

1. Moskovskoye otdeleniye TSentral'nogo kotloturbinnogo instituta.
(Feed-water purification)

EPIFANOV, G. F.

"Search for vaccines against hemorrhagic septicemia. (Bull. de L'Office International des Epizooties, Lill, No. 1-2, 192-195, 1960) R. Bain (Report)".

Veterinariya, Vol. 38, No. 2, 1961, p. 94.

EPIFANOV, N.S.

Result of 300 resections of the stomach in patients with a history of closure of a perforated ulcer. Khirurgiia 36 no.4:13-17 Ap '60. (MIRA 13:12)

(PEPTIC ULCER) (STOMACH—SURGERY)

EPIFANOV, N.S.

Resection of the stomach in the plan for treating perforated ulcer. Vest. khir. 84 no.5:56-60 My '60. (MIRA 13:12)
(STOMACH—SURGERY)

EPIFANOVA, O.I.

Possible ways of hormonal regulation of the mitotic cycle. TSitologiia 4 no.2:128-136 Mr-Ap '62. (MIRA 15:8)

1. Laboratoriya eksperimental'noy tsitologii i tsitokhimii Instituta radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.
(KARYOKINESIS) (HORMONES, SEX)

S/137/62/000/004/044/201
A006/A101

AUTHORS: Besidovskiy, Ye.Ya.; Epik, A.P.; Yudina, A.K.

TITLE: Investigating the process of chemical reduction for the preparation of high-dispersed silver powder

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 42, abstract 4G274 ("Poroshk. metallurgiya", 1961, no. 5, 53 - 59, English summary)

TEXT: The authors studied the chemical reduction process of a $AgNO_3$ solution with $FeSO_4$ solution. To obtain high-dispersed Ag powder (80% of 1 - 5 μ fraction) the $AgNO_3$ concentration should be 0.1 M, and $FeSO_4$ concentration as high as 0.2 M. The necessity of thorough filtration of the solutions is noted. The authors studied washing and drying conditions and the properties of the powder obtained (dispersity and chemical activity). Clodding of the powder can be prevented by adding protective colloides to the solution.

R. Andriyevskiy

[Abstracter's note: Complete translation]

Card 1/1

37567

S/226/62/000/001/003/014
1003/1201

Author: Besidovskiy, E. Ya., Epik, A. P. and Yudina, A. K.

Title: PRODUCTION OF SILVER POWDER BY CHEMICAL REDUCTION EMPLOYING PROTECTIVE COLLOIDS.

Periodical *Poroshkovaya metallurgiya*, no. 1(7), 1962, 21–26.

Text: The influence of protective colloids on the process of production of silver powder has been investigated. Gelatine and particularly casein appeared to be the best protective colloids, and their properties depend chiefly on the methods of their preparation. Using these colloids, light-colored, homogenous and highly dispersed active powders can be prepared by reducing $AgNo_3$ in its solutions by ferrous sulfate, sulfate, There are 3 tables and 1 diagram.

Association: Institut metallokeramiki i special'nykh splavov AN UkrSSR (Institute of Powder Metallurgy and Special Alloys AS UkrSSR)

Submitted: June 17, 1961.

Card 1/1

BESIDOVSKIY, Ye.Ya.; EPIK, A.P.; YUDINA, A.K.

Preparation of silver powders by chemical reduction using protective colloids. Porosh.met. 2 no.1:21-26 Ja-F '62. (MIRA 15:8)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR i Nauchno-issledovatel'skiy institut chasovoy promyshlennosti.
(Powder metallurgy)

EPIK, A.P., inzh.

First seminar at the Department of Technological Sciences of the Academy of Sciences of the Ukrainian S.S.R. on the surface diffusion hardening of metals. Metalloved. i term. obr. met. no.12:56-58 D '62. (MIRA 16:1)
(Surface hardening--Congresses)

41525

S/126/62/014/003/022/022
E193/E383

AUTHORS: Samsonov, G.V. and Epik, A.P.

TITLE: Concerning the problem of the parameters of reactive diffusion of boron and carbon in refractory transition metals

PERIODICAL: Fizika metallov i metallovedeniye, v. 14, no. 3, 1962, 479 - 480

TEXT: Inaccuracies have been detected in an earlier work of G.V. Samsonov and V.P. Latysheva (FMM, 1956, 2, 309) in the values of the activation energy for diffusion (Q) and the pre-exponential factor (D_o) quoted for the diffusion of carbon and boron in titanium, zirconium, niobium, tantalum, molybdenum and tungsten. The present authors obtained correct values of these parameters which not only confirmed the previously reached conclusions on the nature and mechanism of the processes associated with diffusion of carbon and boron in the transition metals but also made it possible to formulate an explanation of the values of D_o in the expression for the temperature-dependence of the

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Concerning the problem ....

diffusion coefficient. Analysis of the relationship between Q and D_o on the one hand, and an index 1/Nn on the other (n is the number of electrons at the d-level, N denoting the basic quantum number of this level) showed that in the case under consideration the diffusion parameters did not depend on the atom size of the diffusing elements. The values of Q and D_o are determined exclusively by the deficiency in electrons at the d-level of the transition metals and by the ease with which boron and carbon give up their valence electrons to the electron gas. There are 1 figure and 1 table.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR (Institute of Powder Metallurgy and Special Alloys of the AS UkrSSR)

SUBMITTED: May 13, 1962

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EPIK, A. P.
TITLE: Seminar on refractory metals, compounds, and alloys (Kiev, April 1963).
SOURCE: Atomnaya energiya, v. 15, no. 3, 1963, 266-267.
ACCESSION NR: AP3008085

5a metals and carbon; mutual solubility of transition metals.

L. N. Komissarova and others. Investigation of the physical properties of scandium and its compounds.

L. M. Kovba, V. K. Trunov. Investigation of the composition and structure of transition-metal oxide compounds.

A. P. Epik. Laws governing the change of the activation energy in the reaction diffusion of nonmetals in refractory transition metals.

B. N. Oshcherin. New formulas for calculating the activation energy of self-diffusion.

The special equipment used in the investigation of refractory materials such as Nb, Mo, Ta, W, and monocarbides at temperatures above 2000—2500C was described by A. Ye. Sheyndin (metals), A. Novitskiy (hard materials), and D. L. Timrot (alloys and compounds).

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S/021/63/000/002/016/016
D405/D301

AUTHOR: Epik, Ø. P.

TITLE: Second Seminar of Technical Sciences Division of the Academy of Sciences UkrRSR on diffusive surface saturation of metals and coatings with refractory compounds of metallic and nonmetallic materials

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 2, 1963, 277-279

TEXT: The Seminar was held at Odessa (10 to 12 October, 1962). Over 70 specialists from 30 research institutes, schools of higher edication and industry participated (from Moscow, Leningrad, Kiev, Novosibirs'k, Sverdlovs'k, Khar'kov and Odessa). In his opening address, the head of the scientific-technical council of the seminar, Candidate of Technical Sciences H. V. Zems'kyy (Odessa Polytechnic Institute), outlined the work schedule of the seminar: theoretical and experimental studies of the main problems of diffusive surface saturation of metals and alloys, with the object of obtaining on the surface of the part layers with special physico-

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D405/D301

chemical and mechanical properties. B. M. Arzamasov (Moscow Higher Engineering School im. Bauman) reported the results of saturation (by the circulation method) of Mo, W, Nb and Ta with silicon, and on the saturation of Mo and W with aluminum. The circulation method proved to be more convenient than the direct-flow method. I.M. [illegible] (Moscow Aviation Institute) dealt with the [illegible] and magnetic properties of metals and alloys which were saturated with various elements, in particular the steels [illegible], saturated with Cr, Mo, W, Si, and Ti; copper and aluminum were also investigated. Other papers dealt with the following subjects: saturation treatment of friction centers; diffusion [illegible] Zr, Nb and Ta; diffusion mobility of tungsten in the bulk and on the grain boundaries of molybdenum; crystallographic features of diffusion phase transformations and reactions; approximate methods of calculation of the strain in the base metal under diffusive saturation; the effect of tempering conditions on the structure and [illegible] of the diffusion layer; the phase composition of the surface layers formed in chromium and nichrome steels; the saturation of iron and steel with boron and silicon; the effect of ultrasonics and high-

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Second Seminar of ...

frequency currents on thermodiffusion in Cr steels. The reports were followed by a discussion.

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EPIK, A. P.

AID Nr. 974-14 22 May

DIFFUSION COATINGS AND REFRACTORY COATINGS (USSR)

Metallovedeniye i termicheskaya obrabotka metallov, no. 3, Mar 1963, 59-61.
S/129/63/000/003/009/009

The Second Seminar on Diffusion Coatings of Metals and Refractory Compound Coatings on Metallic and Nonmetallic Materials was held 10-12 October 1962 in Odessa. B. N. Arzamasov (Moscow Higher Technical School imeni Bauman) reported on Si-coatings on Mo, W, and Ta and Al-coatings on Mo and W produced by a circulation method in which Si and Al chlorides and gaseous HCl are circulated, i.e., reused. This method improves the quality of coatings and the efficiency and economy of the process. G. N. Dubinin (Moscow Aviation Institute) spoke on the electrical and magnetic properties of "10" and "40" steels diffusion coated with Cr, Mo, W, Si, and T, and of copper and aluminum diffusion coated with Ti, Cr, Si, and B. A. P. Epik discussed C and B diffusion coatings on Ti, Zr, Nb, and Ta, the kinetics of formation of carbide

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DIFFUSION COATINGS [Cont'd] S/129/63/000/003/009/009

and boride layers, the structure and phase composition of these layers, and some properties for different conditions of coating. V. I Arkharov spoke on the crystallography of phase transformations and reactions. N. V. Titov (Odessa Marine Academy) suggested a method for the approximate calculation of the deformation of a metal during its impregnation with other metals. N. F. Lashko discussed Si diffusion coatings on Nb and Nb-alloys. M. I. Simonova reported on cation distribution in oxides with spinel structure, which are formed on some alloy steels. These data are of great importance for the investigation of diffusion in oxide systems. [DV]

OROCHKO, A.I.; EPIK, P.A.

Analysis of mixtures of some halogen compounds. Zav.lab. 29 no.12:1431-1432 '63. (MIRA 17:1)

1. Kiyevskiy politekhnicheskiy institut.

SAMSONOV, Grigoriy Valentinovich; ERIK, Aleksey Pavlovich

[Coatings of high melting compounds] Pokrytiia iz tugoplavkikh soedinenii. Moskva, Metallurgiia, 1964. 107 p. (MIRA 17:9)

ACCESSION NR: AP4010063 S/0021/64/000/001/0138/0140

AUTHOR: Epik, A. P.

TITLE: Third seminar on the surface diffusion saturation of metals and coatings at the Division of Phisicotechnical Problems of Materials Standards of the Ukrainian Academy of Sciences, held in Kiev, 25-28 September 1963.

SOURCE: AN UkrRSR. Dopovidi, no. 1, 1964, 138-140

TOPIC TAGS: metal coatings, metal protection, surface passivation, corrosion protection, metal surface reactions, protective coating deposition.

ABSTRACT: The third seminar on the diffusion saturation /deposition?/ of metals and coatings of refraction alloys on metals and non-metals was held in Kiev, 25-28 Sept 63. Over 100 specialists from 60 different institutes, from all over the Soviet Union attended. More than thirty papers and reports were presented which treated the theory and practice of diffusion coatings on metallic materials. Academician-Secretary of the Division of Physicotechnical Problems of Materials Standards (Viddilennya FTPM), I. M. Fedorchenko noted that growing popularity of the seminar was illustrated by the increase of presentations over the 10 presented at the first seminar. Several organizational questions were resolved at the end of the seminar; in particular, it was decided to convene a fourth seminar in

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NO second page

ACCESSION NR: AP4012435 S/0129/64/000/002/0061/0063

AUTHOR: Epik, A. P.

TITLE: Third seminar of the division of the physical and technical problems of materials of the Academy of Sciences Ukrainian SSR

SOURCE: Metalloved. i term. obrab. metallov, no. 2, 1964, 61-63

TOPIC TAGS: metal diffusion saturation, diffusion saturation, heat resistant coating, refractory coating, metallic material coating, nonmetallic material coating

ABSTRACT: This article summarizes the proceedings of the third seminar on the diffusion saturation of metals and refractory coatings on metallic and nonmetallic materials. The seminar was held in Kiev September 25-28, and more than 100 specialists from 60 research organizations, higher institutes of learning and industrial plants took part in it. More than 30 papers were presented by the following participants; I. M. Fedorchenko, G. N. Dubinin (MAI),

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APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041212(

ACCESSION NR: AP4012435

M. P. Kalyanova (VNIIIMYeKMASh), Yu. N. Griboyedov (TsNIITMASh), V. I. Andryushechkin (Moscow Institute of Steels and Alloys), L. T. Gordeyeva (Siberian Metallurgical Institute), V. G. Tinyayev (Kiev Polytechnical Institute), Yu. V. Sorokin (Moscow Institute of Steels and Alloys), V. M. Krivoruchko (Khar'kov Physics and Engineering Institute), G. V. Ryabchenko (MVTU), O. K. Yakshina (TsNII Chermet), R. M. Volkova (Institute of Metallurgy, Moscow), V. N. Konev (Ural State University, Sverdlovsk), V. T. Borisov (TsNII Chermet) V. S. Ivanov (VNIIPTUGLYeMASh), G. I. Yukin (SKTB "Giproneftemash", Moscow), N. S. Zinovich (NATI; Moscow), L. A. Mikhaylov (VNIIETO; Moscow) Ya. N. Funshteyn (Belorussian Polytechnical Institute, Minsk), F. G. Krivenko (L'vov Polytechnic Institute), V. I. Velemitsina (TsNIITMASh, Moscow), Ya. L. Voynich (KhTGZ, Khar'kov), O. M. Shapovalova (UkrNIISpetsstal', Zaporozh'ye), N. G. Kaydash (Odessa Polytechnic Institute), L. K. Gushchin (Odessa Polytechnic Institute), Ye. T. Vasil'yeva (MVTU, Moscow), A. P. Epik (Institute of Metalloceramics and Special Alloys AN UkrSSR), O. V. Yevtushenko (Institute of Metalloceramics and Special Alloys AN UkrSSR), V. V. Terekhova (Moscow), and G. D. Fomenko (Moscow). Orig. art. has: no graphics.

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ACCESSION NR: AP4012435

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 03Mar64 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

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SAMSONOV, G.V.; [Samsonov, H.V.]; EPIK, A.P. [Epik, O.P.]

Reactive diffusion of boron and carbon in refractory transition metals. Dop. AN URSR no.1:67-70 '64. (MIRA 17:4)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR. 2. Chlen-korrespondent AN UkrSSR (for Samsonov).